

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :
Junji KONDO et al. : **Mail Stop: PCT**
Serial No. NEW : Attorney Docket No. 2006_0423A
Filed April 11, 2006 :

CHANNEL-ESTIMATING APPARATUS AND
MIMO COMMUNICATION SYSTEM
[Corresponding to PCT/JP2005/008576
Filed April 28, 2005]

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
FEES FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- ☒ each U.S. Patent and U.S. Patent application publication;
- ☐ each reference previously cited in the international application
PCT/_____; and/or
- ☐ each reference previously cited in prior parent application Serial No.
_____.

1a. ☒ This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the
above-entitled application, or

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

and thus no certification and/or fee is required.

1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, **or**

(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

the certification of paragraph 2 below is provided, and

the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

2. It is hereby certified

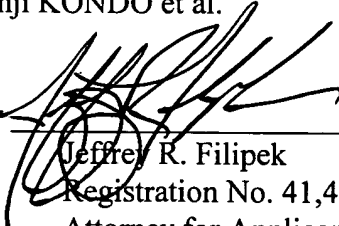
- a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or
- b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.
4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☐ a full or partial English language translation submitted herewith,
 - b. ☒ a foreign patent office search report (in the English language) submitted herewith,
 - c. ☒ the concise explanation contained in the specification of the present application at page 1,
 - d. ☒ the concise explanation set forth in the attached English language abstract,
 - e. ☐ the concise explanation set forth below or on a separate sheet attached to the reference:
5. ☒ A foreign patent office search report citing one or more of the references is enclosed.

Respectfully submitted,

Junji KONDO et al.

By


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April 11, 2006

Sheet 1 of 1

INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

Date Submitted to PTO: April 11, 2006

ATTY DOCKET NO.
2006_0423ASERIAL NO.
NEW

10/575359

APPLICANT
Junji KONDO et al.FILING DATE
April 11, 2006

GROUP

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	AJ	1 359 684 A1	11/03	EP				
	AK	1 445 886 A2	08/04	EP				
	AL	0 893 888 A2	01/99	EP				
	AM	2001-237751	08/01	JP			Abstract	
	AN	2000-101667	04/00	JP			Abstract	

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AO	Siavash Alamouti "A Simple Transmit Diversity Technique for Wireless Communications" IEEE JOURNAL ON SELECT AREAS IN COMMUNICATIONS, VOL. 16, NO. 8, OCTOBER 1998, pp. 1451-1458.
	AP	Gerard Foschini "Layered Space-time Architecture for Wireless Communication in a Fading Environment When Using Multi-element Antennas" Bell Labs Technical Journal, Autumn 1996, pp. 41-59.
	AQ	G. Foshini et al., "On Limits of Wireless Communications in a Fading Environment When Using Multiple Antennas" Wireless Personal Communications, 1998, pp. 311-321.

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.